



STARFLEX APP

APP MODIFIED WATERPROOF MEMBRANE POLYESTER

DESCRIPTION

STARFLEX APP membrane is a plastomeric waterproofing membrane, manufactured from a rich mixture of bitumen and selected polymers (Atactic Poly Propylene) blended together to obtain excellent heat & UV resistance and waterproofing properties. The polymerized bitumen is coated on to a dimensionally stable reinforcement core of non woven spun bond polyester rot-proof fabric. The membrane has excellent mechanical properties and is highly resistant to fatigue and is designed for use in structures exposed to high temperatures.

ADVANTAGES

- Excellent resistance to positive water & vapor pressure.
- Good heat resistance.
- Good dimensional stability under tension.
- Can accommodate structural movements because of excellent flexibility.
- High puncture and fatigue resistance.
- High tensile and tear strengths.
- Resistant to water borne chemicals.

RECOMMENDED USES

STARFLEX APP is used as a waterproofing membrane on the following structures:

- Inverted Roofs & parapets
- Terraces, balconies & patios
- Sunken slabs
- Bridges & tunnels
- Airport aprons & ramp areas
- **STARFLEX APP** in tropical regions can also be used for waterproofing of below ground concrete structures like:
 - Concrete foundations & footings
 - Basements
 - Pile heads
 - Swimming pools & water retaining structures

METHOD OF APPLICATION

The application temperature should be between 4°C to 45°C. Application procedures may vary slightly depending upon site conditions. The general recommended guidelines for the application of the waterproofing system are as follows:

SURFACE PREPARATION

The surface shall be cleaned thoroughly of all contaminants like dust, traces of curing compound, oil and grease. All surface imperfections and protrusions shall be removed and repaired. Structurally unsound and friable concrete must be removed and repaired with a suitable **AQUACRETE 30%™*** concrete repair mortar.

PRIMING

Apply Solvent based bituminous primer @ 4-6 m²/lt as per ASTM D 41 to a clean smooth and dry surface by brush, roller or spray. Allow the primer to dry prior to the application of the membrane. As the viscosity of the primer is low, it easily penetrates into the concrete pores which promote the adhesion between the membrane and the concrete surface. In addition to that the primer also acts as a binder for the dust which gets accumulated on the concrete surface even after cleaning.

ALIGNMENT

Start the installation of all membrane plies from the low point or drains, so the flow of water is over or parallel to the plies, but never against the lap. All overlaps at the membrane seams shall be installed so as to have "up" slope laps over "down" slope lap. Begin membrane application by unrolling the roll of **STARFLEX APP** membrane and aligning the side laps. Re-roll the roll halfway and stand on the unrolled portion to prevent shifting. Side overlaps should be a minimum of 100 mm and the end overlap 150mm.

TORCHING

STARFLEX APP membranes are installed by using a cylinder fed propane gas torch. Use of hand-held roofing torch is recommended as it affords a good control. If multiple burner torching machines are utilized, care must be taken to ensure the application of uniform heat and avoid overheating of the membrane. Begin torching the embossed polyethylene side of the rolled portion of the membrane.

Proper torching procedure involves passing the torch flame in an "L" pattern applying about 75 percent of the heat across the coiled portion of the roll and 25 percent across the substrate, including the lap area of the previously installed membrane.

As the membrane is heated the embossing starts to melt away exposing a shiny bitumen surface. Roll forward the membrane and press firmly with the boot or roller against the substrate to bond well. The propane flame should be moved from side to side and up the lap edge while the membrane is slowly unrolled and adhered to the surface. Subsequent shift of the roll shall be avoided after heating has begun. When one end is complete, re-roll the opposite end not yet torched, and install in the same manner.

As subsequent rolls are installed, heat is applied to both the roll and the exposed laps of the membrane being overlapped onto. Be sure to heat the entire roll evenly, not just the lap areas, with extra concentration at the laps.

CAUTION

Do not over torch the membrane as this will expose the reinforcement and cause damage to it.

SEALING

Heat both the overlaps and use round tipped trowel to seal the overlap. Adequate heat is confirmed when a uniform flow of melted bitumen compound flows evenly in a bead that oozes from the applied membrane's edges. Excess compound should be smoothed and pressed into the seam using a heated trowel. Any un-bonded areas must be lifted and re-torched. Do not attempt to reseal by torching the top surface of the membrane.

Up stand

Flashing details are accomplished using cut pieces of **STARFLEX APP** membrane in combination with appropriate prefabricated flashing components. The same side lap and end lap rules apply to flashing details as to field membrane.

All angles and abutments should be sealed with extra care to ensure full bonding.

SAFETY

STARFLEX APP is safe, non-toxic, and eco-friendly and presents no health hazard. As with all chemicals, caution should always be exercised. Protective clothing such as gloves and goggles

INHALATION: Inhalation of vapor or mist should be avoided. Symptoms include coughing, wheezing, Laryngitis and shortness of breath, headache, nausea, and vomiting. Immediately shift victim to fresh air, and, if needed immediately start artificial respiration. Give oxygen if breathing is labored. Get emergency help.

EYE CONTACT: Flush eyes with water for 15 minutes and call for medical help.

INGESTION: causes nausea, vomiting, and loss of consciousness. If accidentally swallowed do not induce.

SKIN CONTACT: Flush with water or soap and water until all traces have been removed. Seek medical attention if required.

STORAGE

Minimum 12 months in unopened conditions. Store away from sunlight and preferably below 30°C.

PACKING

STARFLEX APP is packaged in 10.00 Mtr L x 1.00 Mtr W as per given details

3mm 1m x 10m, wt 3.0 Kg-3.30 Kg

4mm 1m x 10m, wt 4.0 Kg-4.30 Kg

5mm 1m x 10m, wt 5.0 Kg-5.30 Kg

Technical Support:



& Polymertech UK Ltd.
CN-07468396
United Kingdom

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Marketed By:



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(ISO 9001:2000)

TECHNICAL SPECIFICATION

PRPERTIES	TEST VALUES	STANDARD COMPLIANCE
Product	STARFLEX APP	
Thickness	3mm, 4mm, 5mm	DIN EN 1849-1
Weight (kg/m2)	3 mm = 3.00-3.20 Kg 4 mm = 4.00-4.20 Kg 5 mm = 5.00-5.20 Kg	DIN EN 1849-1
Reinforcement (polyester), GSM	180.00 GSM-250 GSM	DIN EN 1849-1
Tensile strength (N/5 cm)	800/600	DIN EN 12311-1
Coating asphalt Softening Point (R&B), [°C] Penetration @25°C, [0.1mm]	Styrene Butadiene Styrene Polymer Modified Asphalt >150 12-25	ASTM D 36/DIN EN 1427 ASTM D 5/DIN EN 1426
Elongation at break%	40-50	
Shear resistance at joints (N/5cm)	➤ 800/600	DIN EN 12317-1
Tear resistance (N)	180-200	DIN EN 12310-1
Puncture resistance (N)	➤ 550	ASTM E 154
Resistance to leakage at joint @ 5 Bar	No Leakage	BS EN 12390
Water absorption (BSP), %	< 0.2	ASTM D 5147
Heat resistance @ 120° C	NO Flow	DIN EN 52 123